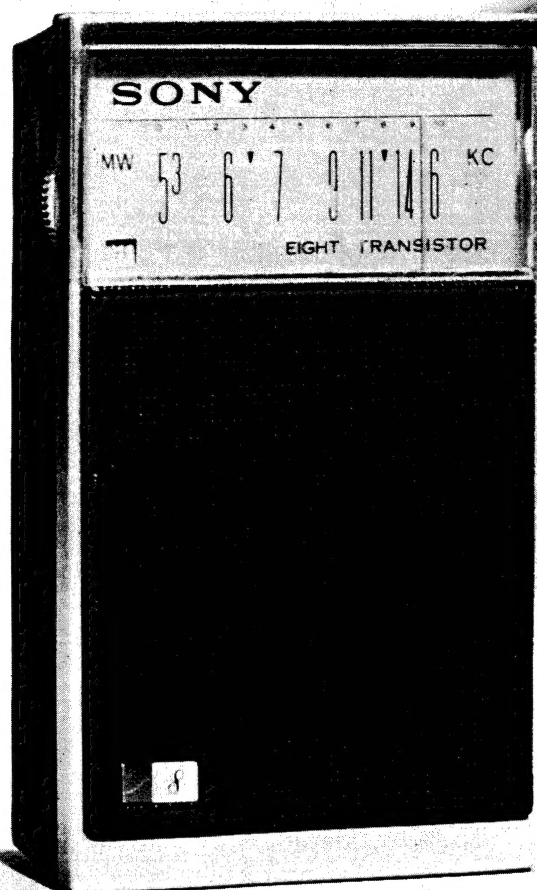


# TR-826



## Specifications

Circuit: 8 Transistor Superheterodyne  
Frequency Coverage: 530—1,605 Kc (566—187 m)  
Intermediate Frequency: 455 Kc  
Antenna System: Built-in Ferrite Bar Antenna  
Maximum Sensitivity: 100  $\mu$ V/m with built-in Ferrite Bar Antenna  
(at 10 mW output)  
Selectivity: 18 dB at 10 Kc off resonance, at 1,400 Kc  
Output Power: 120 mW (undistorted)  
Current Drain: 7 mA at zero signal  
32 mA at 120 mW output  
Speaker: 2-3/8" (6 cm) PM dynamic, 8  $\Omega$   
Battery: Eveready 216 (BL-006P) or  
Equivalent (9 Volts)  
Dimensions: 4-1/8"  $\times$  2-1/2"  $\times$  1-1/8"  
(105  $\times$  63  $\times$  28 mm)  
Weight: 0.44 lb (0.2 Kg.)

**SONY®**  
**SERVICING GUIDE**

## Adjustment and Alignment

### a) Frequency Coverage

Lower Limit	Adjust	Upper Limit	Adjust
520 Kc	Core of OSC Coil (L <sub>O</sub> )	1,680 Kc	OSC Trimmer (C <sub>2-2</sub> )

### b) Tracking Alignment

Checking Point	Adjust	Checking Point	Adjust
620 Kc	Position of ANT Coil (L <sub>A</sub> )	1,400 Kc	ANT Trimmer (C <sub>2-1</sub> )

## To Remove the Chassis and Printed Circuit Board from the Cabinet

- 1) Loosen the Back Cover Securing Screw and open the Back Cover.
- 2) Remove three Nuts (①, ② and ③) as shown in Fig. 1.
- 3) Unsolder the Speaker Lead Wires (White and Black) at the Speaker terminals if necessary.

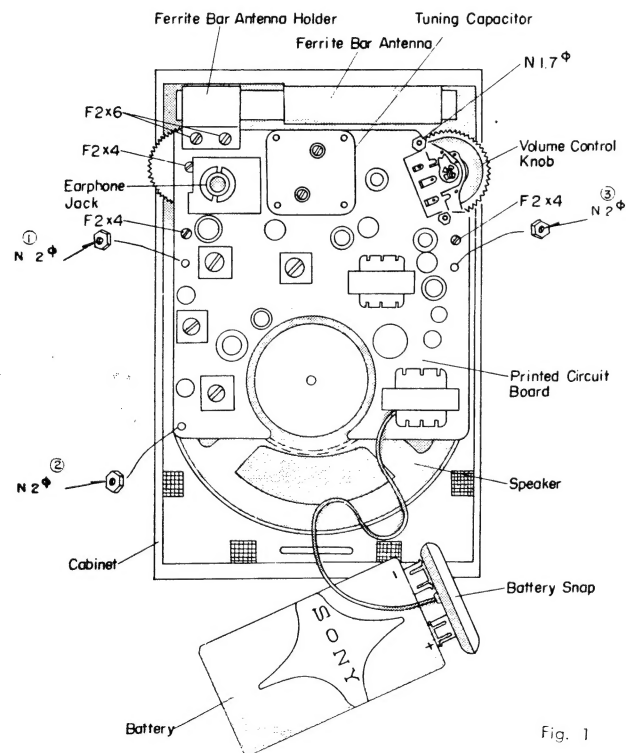
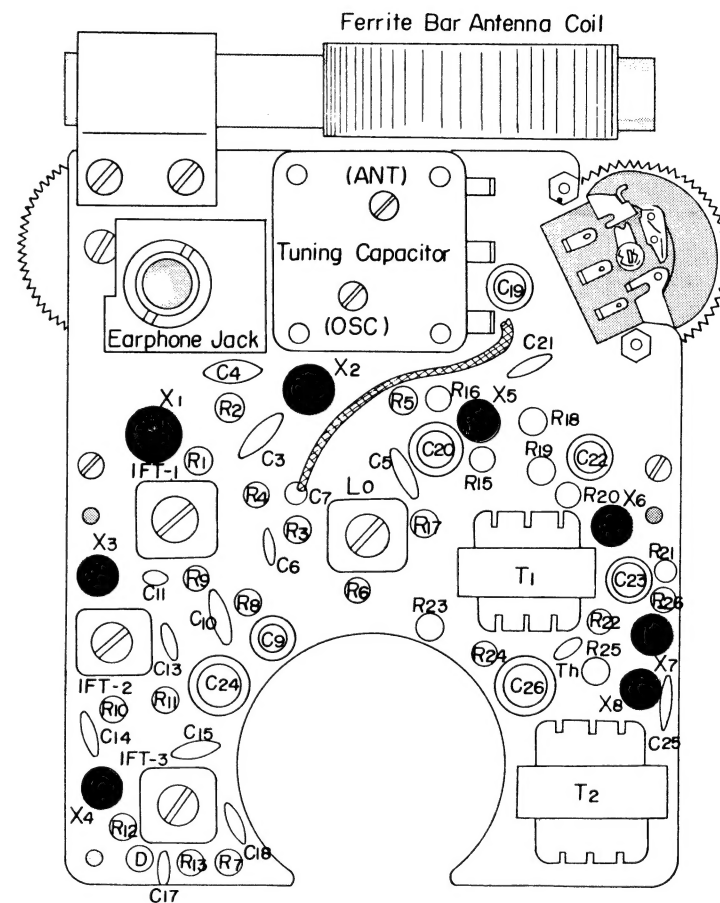


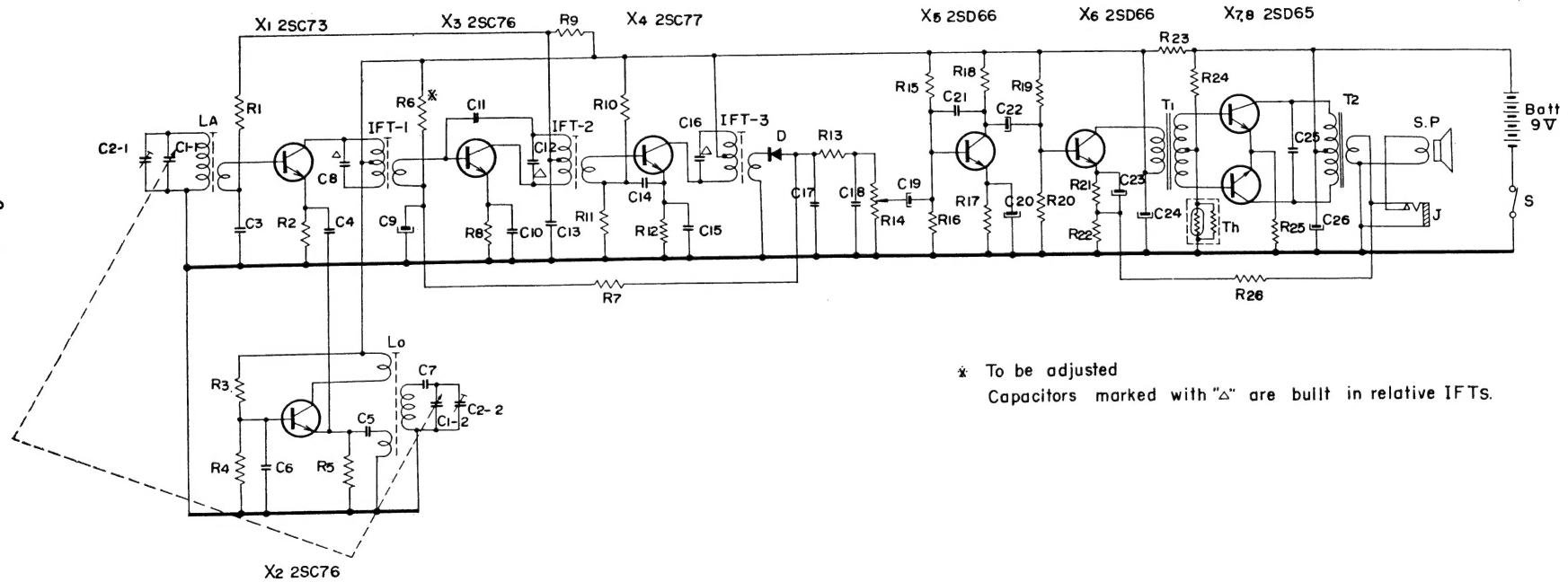
Fig. 1

## Mounting Diagram

—Parts Side—



# Schematic Diagram



\* To be adjusted  
Capacitors marked with "Δ" are built in relative IFTs.

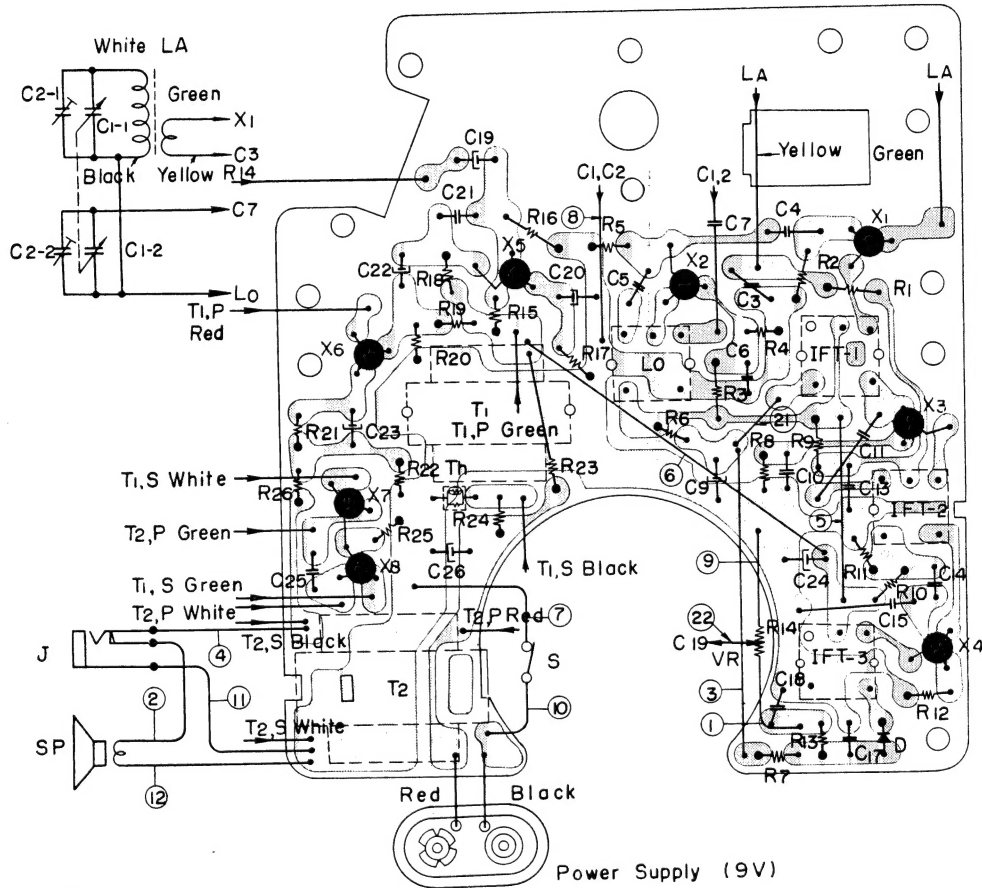
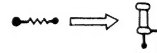
## Electronic Parts List

Part No.	Symbol	Description	Part No.	Symbol	Description	Part No.	Symbol	Description
1-401-173-11	LA	Ferrite Bar Antenna	1-203-425-00	R <sub>4</sub>	5.6K $\Omega$ $\frac{1}{16}$ W Carbon	1-151-051-00	C <sub>2-1-2</sub>	Trimmer Capacitor, 2 unit
1-405-095-11	Lo	Oscillator Coil	1-203-446-00	R <sub>5</sub>	2K $\Omega$ " "	1-101-073-15	C <sub>3</sub>	0.02 $\mu$ F Ceramic
1-403-057-02	IFT <sub>1</sub>	IF Transformer	1-203-614-00	*R <sub>6</sub>	100K $\Omega$ " "	1-105-104-11	C <sub>4</sub>	0.002 $\mu$ F Mylar
1-403-058-02	IFT <sub>2</sub>	"	1-203-425-00	R <sub>7</sub>	5.6K $\Omega$ " "	1-105-104-11	C <sub>5</sub>	0.002 $\mu$ F "
1-403-059-02	IFT <sub>3</sub>	"	1-203-420-00	R <sub>8</sub>	470 $\Omega$ " "	1-101-072-15	C <sub>6</sub>	0.01 $\mu$ F Ceramic
1-423-066-11	T <sub>1</sub>	Driver Transformer	1-203-427-00	R <sub>9</sub>	10K $\Omega$ " "	1-103-024-11	C <sub>7</sub>	130PF Styrol
1-427-090-13	T <sub>2</sub>	Output Transformer	1-203-635-00	R <sub>10</sub>	39K $\Omega$ " "		C <sub>8</sub>	150PF (built in IFT <sub>1</sub> )
1-502-093-11	SP	Speaker	1-203-434-00	R <sub>11</sub>	3.3K $\Omega$ " "	1-121-103-05	C <sub>9</sub>	10 $\mu$ F 3V Electrolytic
1-507-011-00	J	Earphone Jack	1-203-420-00	R <sub>12</sub>	470 $\Omega$ " "	1-101-073-15	C <sub>10</sub>	0.02 $\mu$ F Ceramic
1-528-006-00	Batt.	Battery (9 V)	1-203-421-00	R <sub>13</sub>	1K $\Omega$ " "	1-101-009-11	C <sub>11</sub>	1PF "
	X <sub>1</sub>	Transistor 2SC73	1-221-130-11	R <sub>14</sub>	5K $\Omega$ Volume Control		C <sub>12</sub>	150PF (built in IFT <sub>2</sub> )
	X <sub>2</sub>	" 2SC76	1-203-593-00	R <sub>15</sub>	36K $\Omega$ $\frac{1}{16}$ W Carbon	1-101-072-15	C <sub>13</sub>	0.01 $\mu$ F Ceramic
	X <sub>3</sub>	" 2SC76	1-203-425-00	R <sub>16</sub>	5.6K $\Omega$ " "	1-101-072-15	C <sub>14</sub>	0.01 $\mu$ F "
	X <sub>4</sub>	" 2SC77	1-203-421-00	R <sub>17</sub>	1K $\Omega$ " "	1-101-072-15	C <sub>15</sub>	0.01 $\mu$ F "
	X <sub>5</sub>	" 2SD66	1-203-421-00	R <sub>18</sub>	1K $\Omega$ " "		C <sub>16</sub>	150PF (built in IFT <sub>3</sub> )
	X <sub>6</sub>	" 2SD66	1-203-428-00	R <sub>19</sub>	27K $\Omega$ " "	1-101-072-15	C <sub>17</sub>	0.01 $\mu$ F Ceramic
	X <sub>7</sub>	" 2SD65	1-203-427-00	R <sub>20</sub>	10K $\Omega$ " "	1-101-072-15	C <sub>18</sub>	0.01 $\mu$ F "
	X <sub>8</sub>	" 2SD65	1-203-421-00	R <sub>21</sub>	1K $\Omega$ " "	1-121-103-05	C <sub>19</sub>	10 $\mu$ F 3V Electrolytic
	D	Diode 1T23G	1-203-418-00	R <sub>22</sub>	10 $\Omega$ " "	1-121-103-05	C <sub>20</sub>	10 $\mu$ F 3V "
	Th	Thermistor CS-120	1-203-419-00	R <sub>23</sub>	220 $\Omega$ " "	1-101-140-14	C <sub>21</sub>	0.005 $\mu$ F Ceramic
		Resistor	1-203-426-00	R <sub>24</sub>	7.5K $\Omega$ " "	1-121-104-05	C <sub>22</sub>	10 $\mu$ F 6V Electrolytic
1-203-427-00	R <sub>1</sub>	10K $\Omega$ $\frac{1}{16}$ W Carbon	1-203-418-00	R <sub>25</sub>	10 $\Omega$ " "	1-121-101-05	C <sub>23</sub>	30 $\mu$ F 3V "
1-203-631-00	R <sub>2</sub>	20K $\Omega$ " "	1-203-610-00	R <sub>26</sub>	680 $\Omega$ " "	1-121-110-05	C <sub>24</sub>	30 $\mu$ F 10V "
1-203-635-00	R <sub>3</sub>	39K $\Omega$ " "			Capacitor	1-101-073-15	C <sub>25</sub>	0.02 $\mu$ F Ceramic
			1-151-051-00	C <sub>1-1-2</sub>	Tuning Capacitor, 2 gang	1-121-110-05	C <sub>26</sub>	30 $\mu$ F 10V Electrolytic

\* To be adjusted

## Mounting Diagram

— Printed Side —



No.	PVC Wire Colour	Connection	No.	PVC Wire Colour	Connection
①	White	R13 - R14	⑦	Red	C26 - S
②	"	J - SP	⑧	Black	L <sub>0</sub> - C1,2
③	Yellow	R6 - R7	⑨	"	R14 - C24
④	"	J - R26	⑩	"	-B - S
⑤	Red	IFT <sub>1</sub> - IFT-3	⑪	"	J - G
⑥	"	C24 - R15	⑫	"	SP - G

Tinned Copper Wire	
⑪	IFT <sub>1</sub> - C <sub>9</sub>
⑫	R14 - C19

T<sub>1</sub>, P - T<sub>1</sub>, Primary

T<sub>2</sub>, P - T<sub>2</sub>, Primary

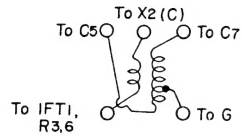
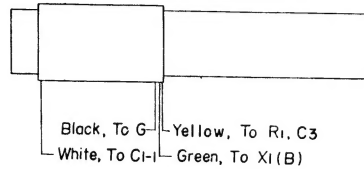
T<sub>1</sub>, S - T<sub>1</sub>, Secondary

T<sub>2</sub>, S - T<sub>2</sub>, Secondary

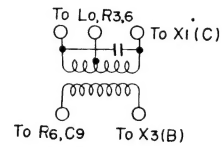
## Adjustment and Alignment

### a) Frequency Coverage

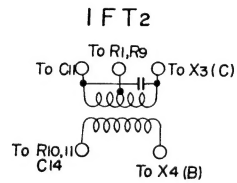
LA. MW, Ferrite Bar Antenna



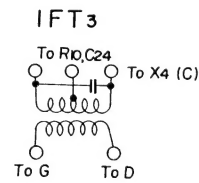
Lo. MW, OSC Coil



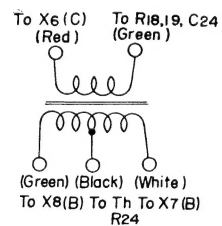
IFT1



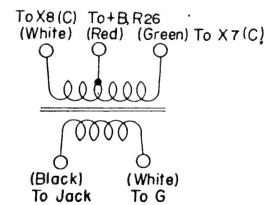
IFT2



IFT3



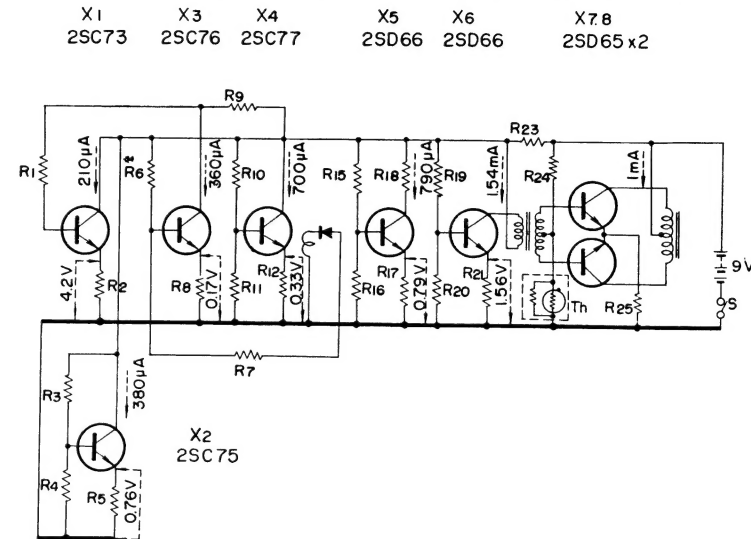
T1 Driver Transformer



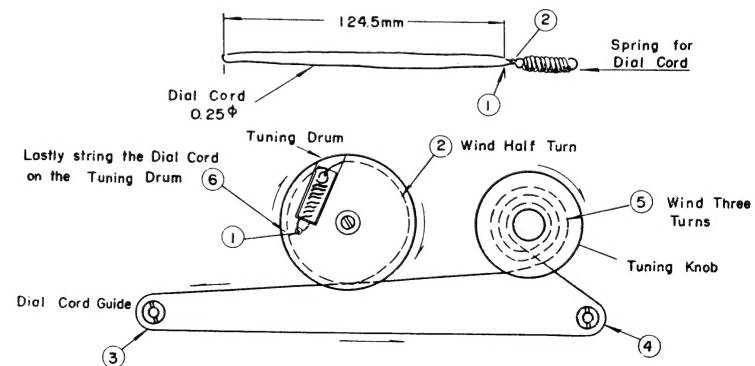
T2 Output Transformer

	Impedance	DC Resistance	Impedance	DC Resistance
Primary	3.9 K $\Omega$	330 $\Omega$	Primary	820 $\Omega$
Secondary	1.8 K $\Omega$	180 $\Omega$	Secondary	8 $\Omega$
				1.1 $\Omega$

## Current and Voltage Distribution Chart at Zero Signal

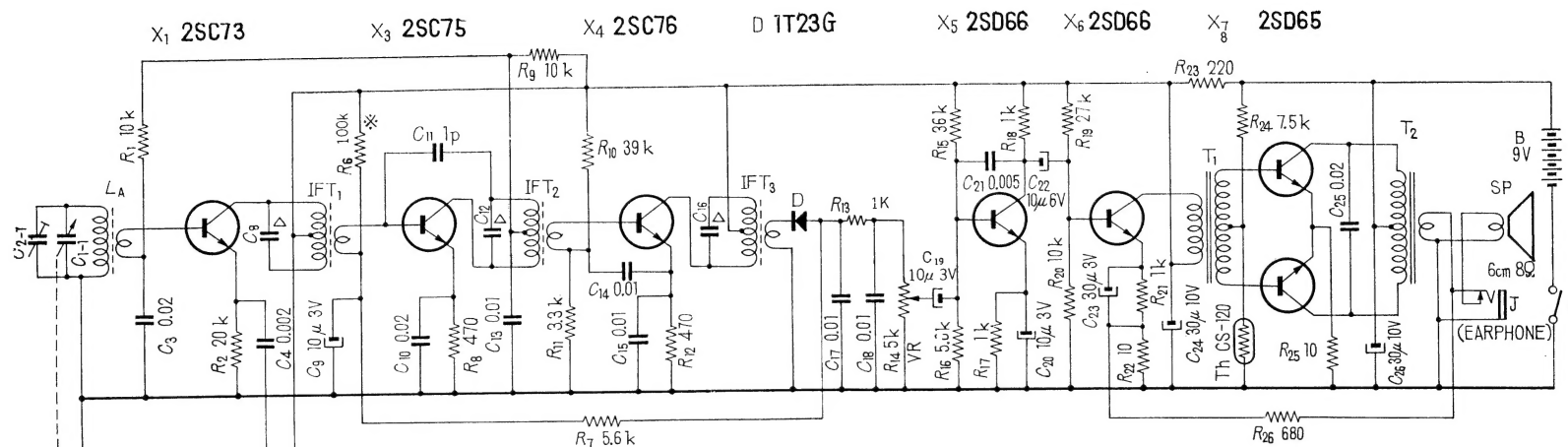


## To String the Dial Cord

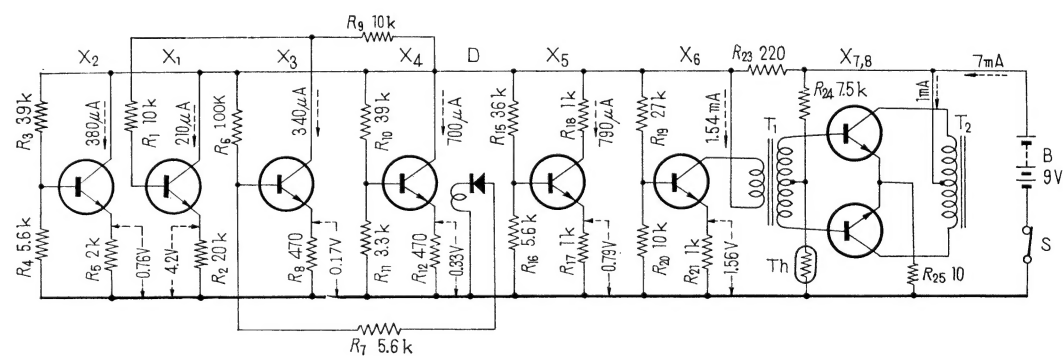


**SONY® Transistor Radio Circuits** ***1***

# Schematic Diagram



## Voltage and Current Distribution Chart at Zero Signal

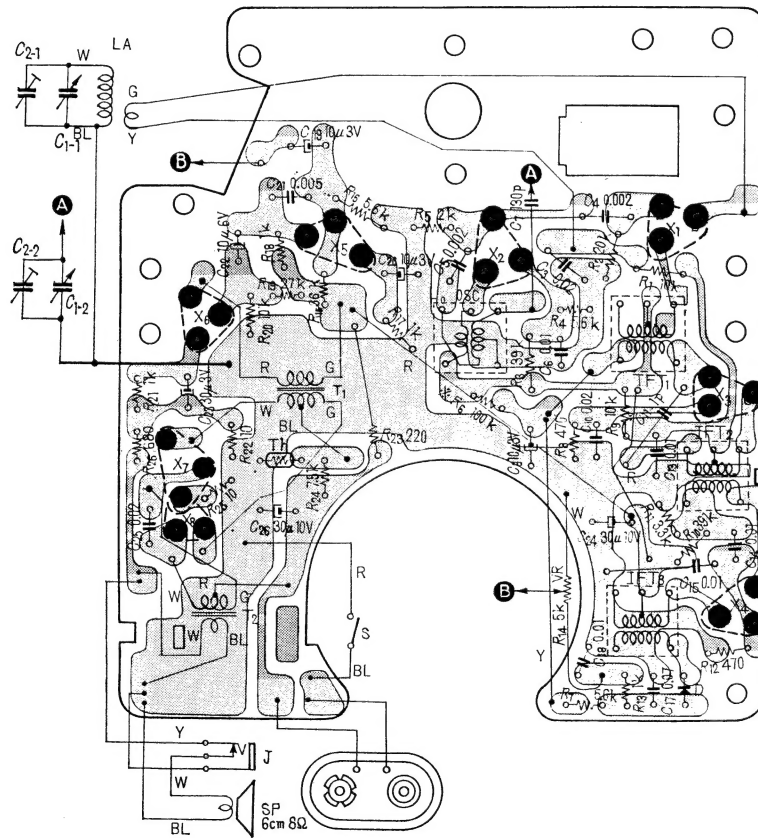


Capacitors marked with "Δ" are built in relative IF Transformers.  
 ※ To be adjusted

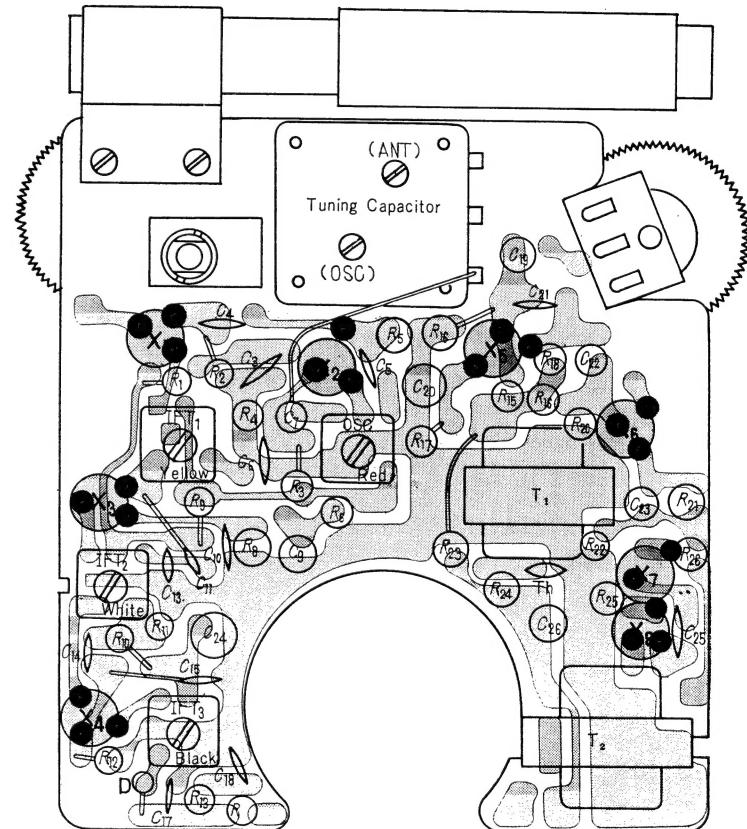


### Mounting Diagram

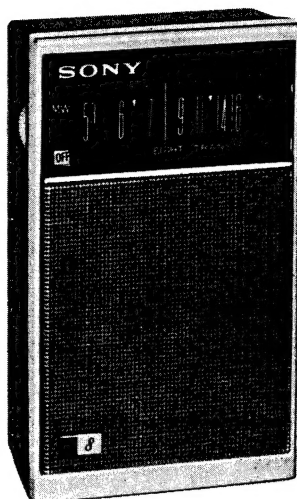
- Printed Side -



– Parts Side –



**TR-826**



## Specifications

Circuit :	8 Transistor Superheterodyne
Frequency Coverage :	530~1,605 Kc ( 566~187 m )
Intermediate Frequency :	455 Kc
Antenna System :	Built-in Ferrite Bar Antenna
Maximum Sensitivity :	100 $\mu$ V/m with built-in Ferrite Bar Antenna
(at 10 mW output)	
Selectivity :	18 dB at 10 Kc off resonance, at 1,400 Kc
Output Power :	120 mW ( undistorted )
Current Drain :	7 mA at zero signal
	32 mA at 120 mW output
Speaker :	2-3/8" ( 6 cm ) PM dynamic, 8 $\Omega$
Battery :	Eveready 216 ( BL-006P ) or
	Equivalent ( 9 Volts )
Dimensions :	4-1/8" $\times$ 2-1/2" $\times$ 1-1/8"
	( 105 $\times$ 63 $\times$ 28 mm )
Weight :	0.44 lbs. ( 0.2 Kg. )

## Adjustments

### a) Frequency Coverage Adjustment

Lower Limit	Adjust	Upper Limit	Adjust
520 Kc	Core of OSC Coil (L <sub>0</sub> )	1,680 Kc	OSC Trimmer (C <sub>2-2</sub> )

### b) Tracking Adjustment

Lower Checking Point	Adjust	Upper Checking Point	Adjust
620 Kc	Position of ANT Coil (LA)	1,400 Kc	ANT Trimmer (C <sub>2-1</sub> )